

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

Product line : W22 - IE4 Super Premium Efficiency
(Multivoltage)

Frame	: 315S/M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3T
Duty cycle	: S1	Rotation ¹	: Both
Ambient temperature	: -20 °C to +40 °C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l	Approx. weight ³	: 958 kg
Protection degree	: IP55	Moment of inertia (J)	: 2.87 kgm ²
Design	: NE		

Output	110 kW	110 kW	110 kW	110 kW
Poles	4	4	4	4
Frequency	50 Hz	50 Hz	50 Hz	60 Hz
Rated voltage	380/660 V	400/690 V	415 V	460 V
Rated current	204/118 A	199/115 A	194 A	175 A
L. R. Amperes	1327/764 A	1390/806 A	1454 A	1383 A
LRC	6.5	7.0	7.5	7.9 x Code J
No load current	70.0/40.3 A	76.0/44.1 A	82.0 A	71.0 A
Rated speed	1489 rpm	1491 rpm	1491 rpm	1792 rpm
Slip	0.73 %	0.60 %	0.60 %	0.44 %
Rated torque	706 Nm	705 Nm	705 Nm	586 Nm
Locked rotor torque	240 %	260 %	280 %	300 %
Pull up torque	200 %	220 %	235 %	255 %
Breakdown torque	250 %	280 %	300 %	310 %
Service factor	1.00	1.00	1.00	1.00
Noise level ²	71.0 dB(A)	71.0 dB(A)	71.0 dB(A)	75.0 dB(A)
Locked rotor time (hot)	39 s	36 s	33 s	41 s
Locked rotor time (cold)	70 s	65 s	59 s	74 s
Efficiency (%)	50%	95.6	95.4	95.3
	75%	96.1	96.0	96.1
	100%	96.3	96.3	96.2
Power Factor	50%	0.73	0.69	0.67
	75%	0.81	0.79	0.77
	100%	0.85	0.83	0.82

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1(0,9;1,0)	3.8	3.8	3.8	3.9
	P2(0,5;1,0)	2.9	2.9	2.9	3.0
	P3(0,25;1,0)	2.5	2.5	2.5	2.6
	P4(0,9;0,5)	2.2	2.2	2.2	2.3
	P5(0,5;0,5)	1.4	1.4	1.4	1.4
	P6(0,5;0,25)	1.0	1.0	1.0	1.0
	P7(0,25;0,25)	0.6	0.6	0.6	0.6

Bearing type	Drive end 6319-C3	Non drive end 6316-C3	Foundation loads	
Lubrication interval	11000 h	13000 h	Max. traction	: 11955 N
Lubricant amount	45 g	34 g	Max. compression	: 21348 N
Lubricant type	MOBIL POLYREX EM		Load type	: -
			Load torque	: -
			Load inertia (J=GD ² /4)	: -

Notes
See notes on page 2.

Rev.	Changes Summary		Rev.	Checked	Date
Performed by	ghodgetts			1751171804	
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Thermal protection				
ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155°C

Space heater information
Voltage: 110-127/200-240 V
Output: 117-156/97-139 W

Notes

Standards	Specification	: IEC 60034-1	Vibration	: IEC 60034-14
	Test	: IEC 60034-2	Tolerance	: IEC 60034-1
	Noise	: IEC 60034-9		

This revision replaces and cancel the previous one, which must be eliminated.

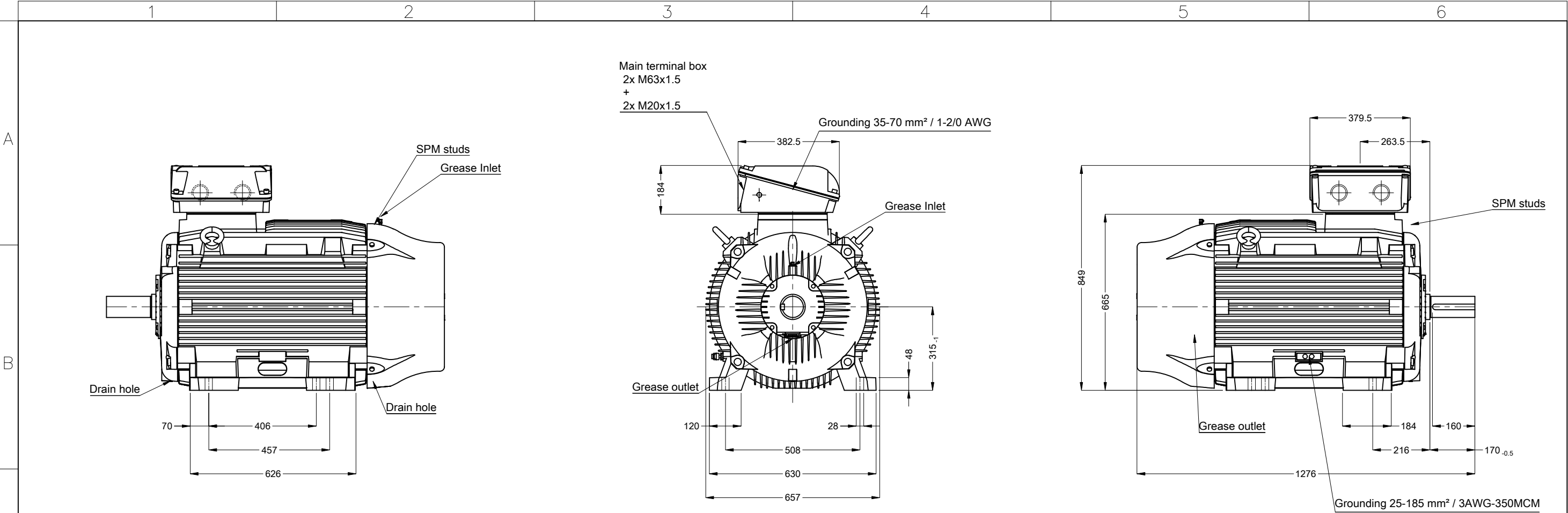
(1) Looking the motor from the shaft end.

(2) Measured at 1m and with tolerance of +3dB(A).

(3) Approximate weight, subject to be changed after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

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D																	
					110 kW 04 Poles 50 Hz										A		
					QUANTUM CONTROLS												
					Scale 1 : 15												
					PIRWBUSER										00		
E	Space heaters 110-127 V / 200-240 V		DE Shaft End DM20 WEG WPR-7339	Vibration sensor studs detail	ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER	
	EXECUTED				PIRWBUSER						THREE PH. MOTOR W22 IE4				PREVIEW		
	CHECKED										FRAME 315S/M IP55 TEFC				WDD 00		
	RELEASED																
	REL. DATE						WEG		REDDITCH [Operational]				SHEET 1 / 1				